

1 1. A composite sleeve seal comprising:
2 a body portion including at least one collar section having at
3 least one link segment extending therefrom; and
4 at least one seal portion contiguous with said at least one collar
5 section and surrounding said at least one link segment to interlock said at least one seal
6 portion with said body portion to form said composite sleeve seal as one integral
7 component.

1 2. A composite sleeve seal for sealing a conduit connection, said
2 composite sleeve seal comprising:

3 a body portion including a plurality of collar sections spaced
4 apart from one another to define at least one gap therebetween, said collar sections
5 being interconnected by at least one link segment spanning said at least one gap; and

6 at least one seal portion interposed said plurality of collar
7 sections in said at least one gap and surrounding said at least one link segment to
8 interlock said at least one seal portion with said body portion to form said composite
9 sleeve seal as one integral component.

1 3. A composite sleeve seal as claimed in claim 2 wherein said at
2 least one collar section is made of plastic material and said at least one seal portion is
3 made of rubber material.

1 4. A composite sleeve seal as claimed in claim 2, wherein said at
2 least one link segment comprises three link segments interconnecting each of said
3 plurality of collar sections together.

1 5. A composite sleeve seal as claimed in claim 4, wherein said
2 three link segments extend axially between each of said plurality of collar sections.

1 6. A composite sleeve seal as claimed in claim 5, wherein said
2 three link segments are circumferentially spaced 120 degrees apart.

1 7. A composite sleeve seal as claimed in claim 2, wherein one of
2 said plurality of collar sections includes a tapered portion having a tapered surface
3 thereon.

1 8. A fluid-tight conduit connection comprising:
2 a female component;
3 a male component positioned within said female component such
4 that said female component circumscribes said male component; and
5 a composite sleeve seal circumscribing said male component
6 such that said composite sleeve seal is interposed said male and female components for
7 sealing said fluid-tight conduit connection, said composite sleeve seal comprising:
8 a body portion including a plurality of collar sections
9 interconnected by at least one link segment; and
10 at least one seal portion interposed said plurality of collar
11 sections and surrounding said at least one link segment to interlock said at least one
12 seal portion with said body portion to integrate said composite sleeve seal;

13 whereby said at least one seal portion is compressed by said male
14 and said female components to primarily seal said fluid-tight conduit connection.

1 9. A composite sleeve seal as claimed in claim 8, wherein said at
2 least one link segment comprises three link segments interconnecting each of said
3 plurality of collar sections together.

418
A2
2 10. A composite sleeve seal as claimed in claim 9, wherein said
three link segments extend axially between each of said plurality of collar sections.

1 11. A composite sleeve seal as claimed in claim 10, wherein said
2 three link segments are circumferentially spaced 120 degrees apart.

1 12. The fluid-tight conduit connection as claimed in claim 8,
2 wherein said female component includes a mounting surface and a throughbore
3 extending through said female component, said throughbore having a chamfer in said
4 mounting surface, said chamfer and said throughbore defining a transition surface
5 therebetween.

1 13. The fluid-tight conduit connection as claimed in claim 12,
2 wherein one of said plurality of collar sections includes a tapered portion having a
3 tapered surface, said tapered surface locating against said transition surface of said
4 female component such that said transition surface engages in annular line contact
5 against said tapered surface to secondarily seal said fluid-tight conduit connection.

1 14. A method of manufacturing a composite sleeve seal comprising
the steps of:

3 producing a body portion including at least one collar section
4 having at least one link segment extending from said collar section;
5 placing said body portion in a mold cavity; and
6 injecting a seal portion into said mold cavity around said body
7 portion contiguous with said at least one collar section and around said at least one link
8 segment for interlocking said seal portion and said body portion to integrate said
9 composite sleeve seal as one integral component.

Add $\frac{1}{4}$